

Serial No.: 09/629,782

Filing Date: 7/31/2000

Attorney Docket No. 100.091US01

Title: ASYMMETRICAL TRANSPORT OF DATA

REMARKS

Applicant has reviewed the Final Office Action mailed on July 25, 2005 as well as the art cited. Claims 1-24 are pending in this application.

The current application was previously amended to claim priority to US Application Ser. No. 08/650,408, a common priority application with Dapper. (See previous Amendment and Response dated March 24, 2004). Applicant continues to assert that the claims of the current application are entitled to the benefit of the May 20, 1996 filing date of the '408 Application and that the amended claims of the current application are fully disclosed in US Application Ser. No. 08/650,408 at p. 115, line 15 – p. 116, line 20 and Figures 112 and 113.

As taught by US Application Ser. No. 08/650,408, p. 115, line 15-24 (*emphasis added*):

"Asymmetrical Data Delivery

For many casual residential users, data traffic can be characterized as mostly "bursty" (intermittent), downstream traffic with relatively, small upstream needs. The most cost effective means of delivering services such as Web browsing, file downloads, and CD-ROM preview is asymmetrical transport. *The asymmetrical data transport embodiment 580 of the invention includes a customer premise unit or Personal Cable Data Modem that contains a 30 Mbps, QAM downstream demodulator (PCDM-30) 620, as shown in Figure 112. PCDM-30 also includes an OFDM upstream modulator supporting a minimum of 64 Kbps guaranteed, non-shared bandwidth. The connection to the customer-end equipment is 10BaseT Ethernet that supports standard TCP/IP.*"

Applicant respectfully asserts that the customer premise unit described above "*that contains a 30 Mbps, QAM downstream demodulator*" and "*includes an OFDM upstream modulator supporting a minimum of 64 Kbps guaranteed, non-shared bandwidth*" supports Applicant's assertion that the claims of the current application are entitled to the benefit of the May 20, 1996 filing date of the '408 Application.

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Rejections Under 35 U.S.C. § 102

Claims 1, 4-10, 13-18, 20, 21, 22 and 24 were rejected under 35 USC § 102(b) as being anticipated by Roberts et al., (PCT Publication WO 96/10303). Respectfully, applicant traverses these rejections.

Independent claims 1 and 10 have been amended to specify that the encoder is a quadrature amplitude modulation (QAM) encoder and that transmission in the upstream direction uses orthogonal frequency division multiplexing (OFDM). Roberts et al. fails to teach orthogonal frequency division multiplexing (OFDM), which applicant teaches in the specification (page 2, line 7-9, and page 5, line 3-5). Further, applicant also teaches the use of quadrature amplitude modulation (QAM) in the downstream direction (page 2, line 7-9, and page 3, line 28-29). Thus, these amendments do not present new matter.

Applicant respectfully asserts that the amended claim 1 and 10 are allowable. Because claim 1 is allowable, applicant asserts that claims 2-9, which depend directly or indirectly from claim 1, are also allowable. Because claim 10 is allowable, applicant asserts that claims 11-17, which depend directly or indirectly from claim 1, are also allowable.

Independent claim 18 has been amended to specify “modulating the downstream direction data from the data source with a quadrature amplitude modulation (QAM) modulation technique that produces a downstream transmission with a first data rate” and “modulating data from the service unit with a modulation technique that produces an orthogonal frequency division multiplexing (OFDM) upstream transmission with a second data rate” Roberts et al. fails to teach orthogonal frequency division multiplexing (OFDM), which applicant teaches in the specification (page 2, line 7-9, and page 5, line 3-5). Further, applicant also teaches the use of quadrature amplitude modulation (QAM) in the downstream direction (page 2, line 7-9, and page 3, line 28-29). Thus, this amendment does not present new matter.

Applicant respectfully asserts that the amended claim 18 is allowable. Claim 19, which depends on claim 18, has also been amended to provide a proper antecedent basis to claim 18. Because claim 18 is allowable, applicant asserts that claims 19-21, which depend directly or indirectly from claim 19, are also allowable.

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Independent claim 22 has been amended to specify "a modulator, coupled to the same network, that provides upstream data over the network in a second, different frequency band with a second, different data rate using orthogonal frequency division multiplexing (OFDM)."

Roberts et al. fails to teach orthogonal frequency division multiplexing (OFDM), which applicant teaches in the specification (page 2, line 7-9, and page 5, line 3-5). Thus, this amendment does not present new matter.

Applicant respectfully asserts that the amended claim 22 is allowable. Because claim 22 is allowable, applicant asserts that claims 23-24, which depend directly or indirectly from claim 19, are also allowable.

Withdrawal of the rejections is respectfully requested. Because the Applicant believes claims 1-17 are allowable for the above reasons, Applicant may not have put forth responses to additional rejections to said claims at this time. However, the Applicant reserves the right to address said additional rejections to said claims if a further response is required.

Rejections Under 35 U.S.C. § 103

Claims 2, 11, 19 and 23 were rejected under 35 USC § 103(a) as being unpatentable over Roberts et al. in view of Doshi et al. (U.S. Patent No. 6,055,424). Applicant respectfully believes that Examiner intended to cite Doshi et al. (U.S. Patent No. 6,055,242). Applicant respectfully traverses this rejection.

Claims 2, 11, 19 and 23 depend directly or indirectly from claims 1, 10, 18 and 22 respectively. Because claims 1, 10, 18 and 22 are allowable, claims 2, 11, 19 and 23 are also allowable.

Claims 3 and 12 were rejected under 35 USC § 103(a) as being unpatentable over Roberts et al. in view of Humbleman (U.S. Patent No. 6,005,861). Applicant respectfully traverses this rejection.

Serial No.: 09/629,782

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Claims 3 and 12 depend directly or indirectly from claims 1, and 10 respectively.

Because claims 1 and 10 are allowable, claims 3 and 12 are also allowable.

Withdrawal of the rejections is respectfully requested. Because the Applicant believes claims 2, 3, 11, 12, 19 and 23 are allowable for the above reasons, Applicant may not have put forth responses to additional rejections to said claims at this time. However, the Applicant reserves the right to address said additional rejections to said claims if a further response is required.

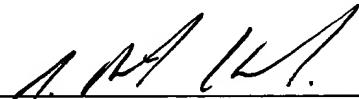
CONCLUSION

Applicant respectfully submits that claims 1-24 are in condition for allowance and notification to that effect is earnestly requested. If necessary, please charge any additional fees or credit overpayments to Deposit Account No. 502432.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at 612-455-1687.

Respectfully submitted,

Date: Oct. 12, 2005



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